

THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

August 1999



Land! We're on Fire!

I Almost Hit My Lead

Mainmount Tire Blaze

inside approach

The Naval Safety Center's Aviation Magazine

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On the Cover Flight-deck crewmen prepare to launch a Tomcat on board USS George Washington (CVN 73). (Photo by Cdr. Dave Baranek)

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Land!

by Capt. Donald Julian

ATEN-DAY VIP SUPPORT DETACHMENT TO San Francisco? Somebody pinch me! Our squadron had been tasked to support the Marine Corps Warfighting Lab's Urban Warrior exercise while the Special MAGTF operated in and around the bay area. Our job was to base two CH-46Es out of Moffett Federal Airfield (along with a detachment of Hueys) and support the VIPs and media during the high-profile exercise. A great mission for us FRS guys!

On our second day there, we were to be the "big, gray school bus" and shuttle media between Monterey Airport and two of the Navy's newest ships, the USS *Coronado* and the USS *Bon Homme Richard* (BHR).

...we all decided to take it especially since we would

We launched out of Moffett at 0800 as Dash 2 and headed straight to Monterey. The schedule allowed the reporters time to go through each ship's presentation on the exercise as we were shuttling the other waves back and forth.

During the transit to Monterey, the four of us discussed how we would approach our ship landings, since we returned from our last deployment nearly eight months earlier. Although we had recently warmed up while at Camp Pendleton, begging, borrowing, and

Monterey County Herald
photo by Orville Meyers



We're on Fire!

easy and be methodical about operating around the boat, have civilians aboard who would probably be more than a little anxious.

stealing deck time, we all decided to take it easy and be methodical about operating around the boat, especially since we would have civilians aboard who would probably be more than a little anxious.

The morning was absolutely beautiful. The infamous San Francisco fog was nowhere to be seen. Flying around for close to eight hours in such a scenic place was going to be great.

After several runs, we headed back to the *BHR* to pick up our next load. At this time, our biggest dilemma seemed to be which ship had the best box lunches as it was nearly chow time (it's the *Coronado*, by the way). We landed aboard the *BHR* and waited for 40 minutes while they gathered our passengers and we refueled. During our deck time, we were noticing the guys from



the ACE doing things that seemed odd. There were two CH-46s making hover checks over the deck with some kind of urban-assault vehicle in them (to check the helicopter's center of gravity). And a CH-53E was trying to land on spot 2 in front of turning Frogs (no offense, but yikes!). Nothing unsafe, but these activities made us a little more cautious about things. As a result, we decided to take our time and make sure everything was good before we departed with our load of 14 civilian reporters and photographers.

Between the copilot, crew chief, observer (also a crew chief) and me, we have probably taken off from the ship a couple of thousand times. It's almost automatic

sometimes. This time, though, things were quite different.

As my copilot, Capt. Chad Conyers, in the left seat, pulled power to lift into a hover, I scanned the gauges for abnormalities, and to make sure we had enough power to slide. As soon as our back end came off the deck, I noticed our "APU FIRE" light illuminate, quickly go off, and then come on again. I wasn't too alarmed (thinking it couldn't be real) and said, "We have an APU fire light."

Immediately, I heard shouts from the back of the plane over the sound of the whistling transmissions and rotors. I can't recall who said it, but between my wingman (on the spot behind me), the Air Boss, the crew chief, and the other aircraft's crew, I distinctly heard the word "fire."

We were now six to eight feet off of the deck, and we had been in the air about seven seconds. Even though we had briefed that if there was a problem on takeoff, we'd say "Abort, abort, abort," all I could get out was, "Land!"

The copilot simply said, "OK," and planted it back on the deck.

As soon as we landed, I reached for the engine-condition levers and looked back from the right seat to see what was going on in the rear. Time stopped at this point as I saw the ceiling of the cabin completely engulfed in flames from the back to about half way up the fuselage. The airflow in a Frog goes from rear to front, and it fed the flames to make it look like a river of fire flowing along the top of the tunnel. I shut the engines down while the copilot activated the rotor brake. We were quickly breathing smoke.

I jettisoned my crew door and started to get out. The copilot, who had not looked back to see the fire, figured that since I was



bailing he should, too, an easy decision since he was choking on the smoke.

Somewhere during the six-foot jump down, I realized there were still 14 passengers and two aircrew in the back. I was out, but I had no idea what was happening in the back. I turned toward the crew door when I landed and saw two men with cameras trying to get out. Along with Sgt. Jeffrey Kudlich, the crew chief, who was standing on the deck next to the crew door, I helped them down (basically throwing them out). I saw Sgt. Clifton Bowers, the observer, on his knees inside the door behind the two cameramen. In less than 30 seconds, all 14 civilians had been evacuated by the two aircrew.

I didn't know it then, but the other passengers started getting out as soon as we landed, with one even going out the gunner's door. Fortunately, none was seriously injured, although one did suffer smoke inhalation.

Sgt. Bowers had waited until we landed to run to the back of the plane (into the fire) to make sure he was the last one out. In the process, he helped one man who was frozen in the last seat by the fire, no doubt awestruck by the fire's intensity.

The aircrew's heroic efforts ensured that everyone was out. The four of us evacuated the plane as the hose teams moved in to put the fire out. We had earlier remarked how nice the *BHR*'s flight deck had been, and even how clean the chocks and chains were on the newest LHD in the Pacific Fleet. Now spot 6 and the surrounding area were covered with the foul-smelling *AFFF*. I guess we made our mark. Also, the cameramen, to their credit, had filmed the entire event from ignition to egress. This also allowed us to re-live the whole event all weekend on the local news channels.

In retrospect, I am convinced we could not have prevented the fire. It started in the tail of our helo (not the engines) and was obviously fed by some fluid under pressure. If it had happened five to ten seconds later, I'm sure the outcome would have been different.

I said earlier how takeoffs seem almost automatic sometimes, but what has to be automatic is your actions in an emergency. A reporter who was on board the plane remarked in a later newscast that we (the aircrew) seemed to become robots when we realized there was a fire methodically going through the drills of setting the plane down and evacuating the passengers. The credit goes to our training, from annual egress drills to NATOPS checks as well as the briefing of the passengers by combat cargo. When we needed it, the skill, or the muscle memory, was there. When the passengers needed to egress quickly, their brief was what they relied upon to get out safely.

Within 45 seconds, we went from taking off for a routine passenger transport to standing next to a burning Frog on an eerily quiet flight deck. As pilots, we had the easier job of just landing and shutting down. The crew, however, risked their lives to ensure the safety of the civilians on board. In an emergency, you have to rely on your training. It works! 



Capt. Julian and his crew fly with HMM(T)-164.

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Capt. Julian and his crew fly with HMM(T)-164.

by Lt. Robert Wood

TWO OTHER ECMOS AND I WERE VISITING NAWC China Lake for a good-deal HARM shot. The day was beautiful, no clouds, perfect for flying, just as the entire week had been. We were testing the compatibility of the new software in the EA-6B Block 89A, wringing out the back seat for the next day's shot. It was pretty benign compared to the TACFORM and EVM we'd been flying the last few months.

After the required system tests, we had tons of gas, so we zoomed through Death Valley,

That Was No That Was My



toured the John Muir Wilderness and the surrounding national forests, followed by a couple of circles around Mt. Whitney. Impressive, even for those of us who live in the mountain country of the great Northwest. Course rules back to the field were uneventful—until we called the tower.

As we descended through 1,500 feet AGL for the carrier break, we heard a loud “boom, bang, shoosh.” We felt the Prowler shudder violently, and the cockpit got noisy with a strong rush of air and dust. We first thought the rear canopy had come off, but we quickly realized both hoods were still on. Had we hit a bird or lost a panel? We checked the wings and saw both slats and the wing stores were still attached. What about the centerline pod?

Bird, Radome!

I immediately squawked 7700 and told tower we were declaring an emergency for extreme aircraft vibrations. They cleared the pattern to check us over as we flew past. They reported our nose looked “smashed in.”

Of course. The radome had imploded! Now that we knew the problem, the tension in the cockpit subsided, and we decided to get on deck as soon as possible.

All four of us quickly checked the wings for damage from debris, but everything looked fine. We dirtied up with no problems.

The pilot set up for an extended straight-in approach while I told tower we would take an arrested landing.

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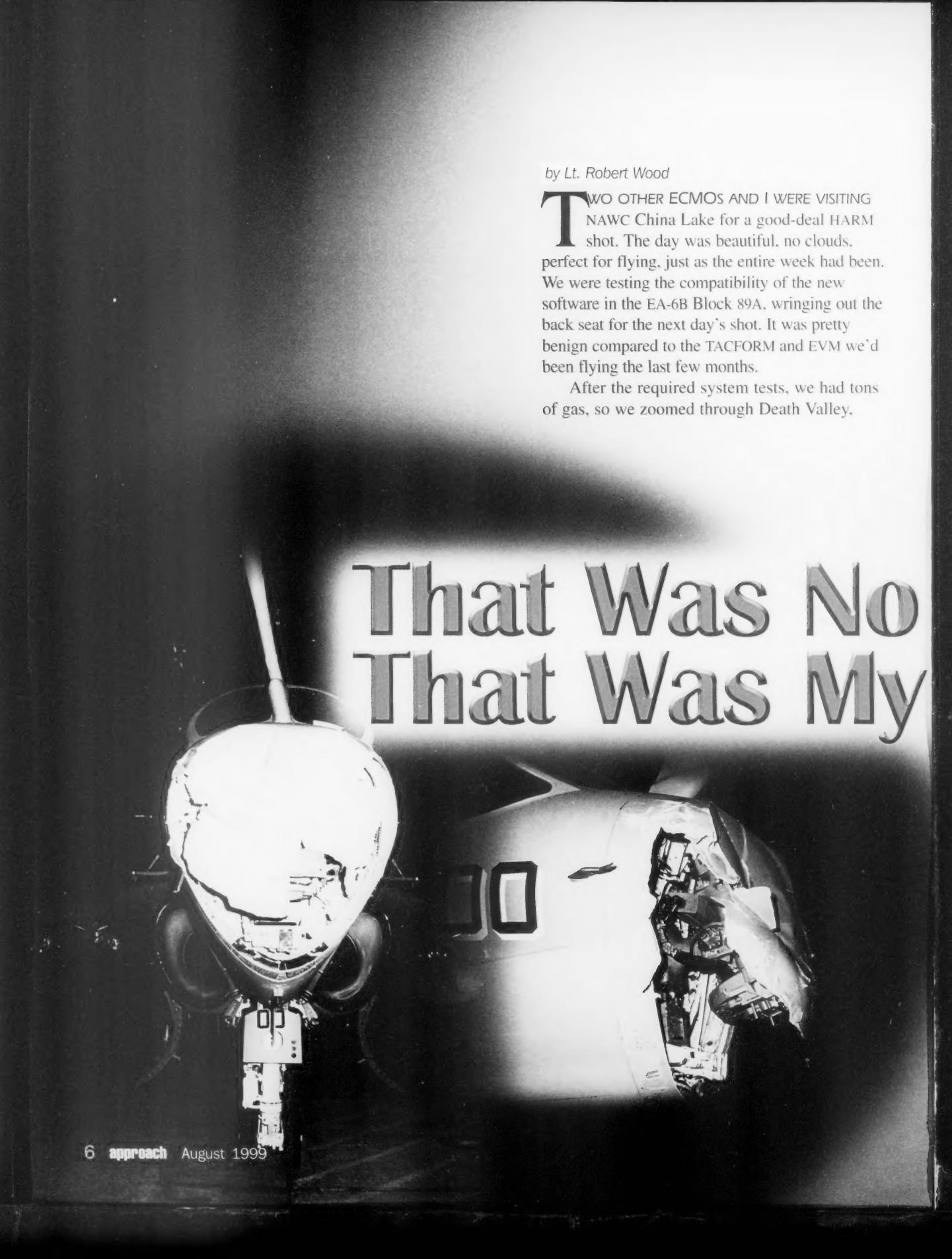
On the approach, I noticed the pilot shaking the stick back and forth. With a completely abnormal attitude and fluctuating airspeeds, the pilot waved off, saying, “Something doesn’t feel right.”

ECMO 2 mentioned his airspeed indicator was about 20 knots slower than ours, and it was fluctuating 20 to 30 knots. We realized the pitot probes were probably damaged by radome debris. ECMO 3 suggested using the GPS ground speed for the approach. Quickly comparing the GPS and INS ground speeds, we flew the subsequent approach 10 knots faster than our calculated on-speed. We trapped, climbed out of the aircraft, and checked the radome. There was no evidence of a bird strike, or any other reason for its failure. Looking down both engines, we saw there was oil dripping from the six o’clock first-stage compressor blade.

The next day, after maintenance had borescoped the engines, they told us two blades on the fifth and sixth stage of the starboard engine fell off with only a slight amount of pressure.

Should we have climbed and slow-flighted the aircraft in the configuration? That would’ve been a good idea after we did a damaged-aircraft checklist, as we were already in the pattern and there was a low probability the engine had been RULING. The right choice was to land ASAP.

14
15



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Should we have climbed and slow-flighted the aircraft in the landing configuration? That would have been a good idea after we did the damaged-aircraft checklist, but as we were already in the pattern and there was a high probability the engines had been FODed, the right choice was to land ASAP.

Lt. Wood flies with VAQ-140.

We Nearly Kippered



by LCdr. John J. Coffey

IT WAS A COLD FEBRUARY NIGHT IN Andoya, Norway, when we arrived at the final-approach fix for the high-localizer approach to runway 15. We were above the Arctic Circle, but below where we thought we were in altitude. The days lasted only a couple of hours, and the nights were long, cold and dark. As Jacksonville-based crews two weeks into a deployment to Iceland, we were not used to seeing this weather: at the field, 400-foot overcast with a half-mile visibility, and winds out of the south gusting to 30 knots in a sub-freezing snow storm. Just weeks before we had been on the beaches of Florida and shooting visual approaches to NAS Jacksonville.

We arrived at the final-approach fix after a three-hour reposition flight from NAS Keflavik. We entered the terminal environment and switched to tower frequency. Andoya Tower reported snow showers in the vicinity with reduced visibility. At FL

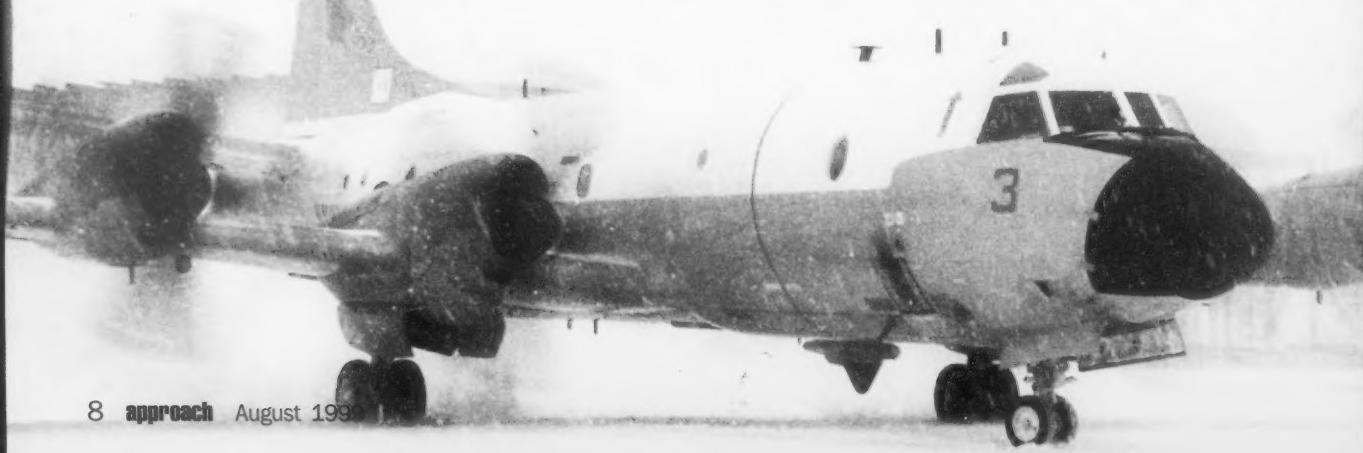
100, Andoya Tower cleared us "to descend to four thousand feet, transition level six thousand, five hundred feet, QNH nine hundred and sixty-eight HPA, or twenty-nine point fifty-eight in mercury."

The copilot read back the clearance, and reviewed the descent checklist. We briefed the localizer approach to runway 15 with a minimum-descent altitude (MDA) of 320 feet on the barometric altimeter and 290 feet on the radar altimeter. We had to delay the approach for an hour so ground crews could clear some snow.

While we held, the tower crew experienced radar problems, resulting in intermittent contact with our aircraft. Because of the radar's unreliability, we were cleared for the full procedure-turn approach. Once we intercepted the final-approach course, we started down to 1,500 feet in accordance with the published approach. The off-duty flight engineer, in the flight station, as an observer noticed the radar altitude appeared low, so he asked the field elevation. The pilots replied it was 46 feet, not realizing the FE's concern about the low radar altitude.

During the transit, the radar altimeter had intermittently displayed faulty readings, causing the low-altitude light to illuminate and the radar-altimeter warning system (RAWS) to sound.

At six miles, we reported the final-approach fix and began descending to MDA in heavy snow showers. Passing 1,350 feet (indicated barometric), the low-altitude light on the radar altimeters illuminated, indicating the aircraft was less than 290 feet AGL. The pilot waved off and made the published missed approach.



Ourselves in Norway

Once safely back in holding, the aircrew began sorting through the facts. Again we asked for the current altimeter setting. Tower provided QNH of 968 HPA, 28.58 inches hg. We reevaluated the information and found that the new altimeter setting resulted in a matched barometric and radar altimeter.

Incredibly, the controller had erred in converting QNH from hectopascals to inches hg, resulting in us holding 1,000 feet below assigned altitude and reaching MDA four miles before the missed-approach point in IMC. Another approach followed, and we broke out of IMC at 400 feet, with one mile of visibility in heavy snow. A difficult but smooth landing followed.

With knuckles still white, we discussed our luck and concluded that the errors in QNH conversion coupled with breakdown in crew coordination could have resulted in a huge fireball four miles from Air Station Andoya. Sounded like a bad movie. Our ASO briefed this incident at the next all-aircrew meeting, reminding all crews to

verify QNH when presented with QNH in HPA. We now use this event as a drill during ACT training.

Our skipper wrote the following comments in the hazrep:

..We can learn many valuable lessons from this incident. First, the aircrew is always ultimately responsible for safety of flight, which includes altimeter conversions; always have someone on the crew double-check those computations. Pilots should always keep the radar altimeter in their scan, not just after the final-approach fix. The radar altimeter was intermittent during this flight, but was working properly below 5,000 feet. We cannot emphasize ACT enough. In this case, the off-duty FE was aware of a dangerous situation, but failed to properly address it.

We were all thankful that the crew landed safely and provided us with the opportunity to learn from their firsthand experience. 

LCdr. Coffey flies with VP-45.

Remembering VAdm. Donald D. Engen

Naval aviation recently lost a great pioneer and dedicated friend, in that realm he felt so comfortable in when he died in the crash of a motorized glider south of Reno. VAdm. Don Engen was one of this country's most eminent emeritus aviators, whose accomplishments are too great to completely list in this short piece. A highly decorated combat pilot, he helped sink one of the last Japanese carriers at Leyte Gulf in 1944, for which he received the Navy Cross. He also flew some of the first carrier air strikes in Korea. He set records in various new aircraft, and was one of the few people to log time in what many consider the greatest single-seat jet fighter built, the Vought F8U-3 Crusader III.

He was the second CO of the USS *America*, and also tested many flight-deck developments we now take for granted. He was largely responsible for expanding the hazardous duty pay for flight-deck crews when only a few senior enlisted members received the prized "skins."

Adm. Engen served as head of the Federal Aviation Agency—a presidential appointment—in the mid-'80s, and as the president of the Aircraft Owners and Pilots Association's Safety Foundation. He never lost his love and wonder of flying.

At 72, most people begin to think about settling down and resting, but not Don Engen. In 1996, he took on the arduous task of leading the National Air and Space Museum out of a difficult period of turmoil and readjustment, and preparing the way for the construction and

opening of an important new display facility at Dulles International Airport, west of Washington. He spent much of his time crisscrossing the country to seek support for the new museum, and there were times, I think, he was happy to run away to the little airport at Minden, 50 miles south of Reno, where he kept a glider, and from where he and a friend—another highly experienced pilot—took off on Tuesday, July 13.

More than 2,000 people attended the funeral at the National Cathedral—dignitaries, friends, retired admirals and aviators. FA-18s provided the "Missing Man" formation at the interment at Arlington National Cemetery. Then, friends and staffers gathered at NASM to see Don Engen off in fine style.

Adm. Engen was a true believer in aviation safety, and as a commander, he wrote a lengthy article for *Approach* in 1959. If you stay in this business long enough, you eventually accumulate a long list of friends lost along the way. I was not ready to add his name to my list, but it happened. We here at the Safety Center, and especially at *Approach*, can only send our heartfelt condolences to his family, and be grateful for the admiral's efforts throughout his long and productive career.

Peter Mersky, Editor

A Word to You

Anonymous

AS MONTH FIVE OF OUR DEPLOYMENT IN the Persian Gulf arrived, an insidious malaise had firmly gripped our air wing. The exciting had become mundane, the new had become old, and the experienced among us preached incessantly that the perils of carrier aviation waited for these very moments to snatch the inattentive and feast on their carelessness. Most of us, however, dismissed these warnings as contrived and the fears as irrational. Like the weary driver fighting off sleep in the early morning, we needed something to jolt us back into recognizing the real dangers of flying around the ship.

One day, as my engines spooled up and the jet squatted in tension, I paused momentarily and wondered if I had actually completed my takeoff checks. By now, most of my life was a series of routines and habits that required minimal thought, allowing my mind to wander toward other things during idle moments.

I had done the checks minutes earlier without much thought while I pondered something unrelated to flying. A quick scan of the flaps, trim setting, and the presence of two fires in the engines assured me that I was ready to go. With a control wipeout, I flipped the external-lights switch forward. I was catapulted into the dark, hazy abyss.

However, on the catapult stroke, the exhalation valve of my mask had seized shut, making it hard to breathe. I pulled down on the bayonet fitting, releasing the mask from my helmet, and secured the oxygen. I'd fiddle with it once I was safely away from the water.

I started a slow climb to 26,000 feet en route to our CAP station 100 miles south of mother. Once there, I set up an east-west racetrack pattern and put the autopilot on altitude hold while I waited for my wingman, who had launched late.

After only one lap in my holding pattern and

I would likely have flamed out somewhere in Iran, sleeping peacefully all the way to the crash.



© Steve Lightfoot

Mask Rebels

now heading east toward Iran, I felt a tingling all through my arms and legs. Of course, my mask was still off, and I peered down past the stick to discover to my amazement that the cockpit pressure read 26,000 feet. I knew immediately that I was hypoxic!

I quickly reattached the mask to my face, turned the oxygen back on, and checked the ECS panel: mode switch—auto; temp knob—full cold; cabin-pressure switch—dump. I moved the switch to normal, and the cockpit rapidly pressurized down to around 10,000 feet. Another minute without oxygen and I may have never turned back to the west. I would likely have flamed out somewhere in Iran, sleeping peacefully all the way to the crash.

The Navy's Hornets do not have any cockpit warning of a lack of pressurization. Moreover, when the cabin-pressure switch is in the dump position instead of ram-dump, ECS flow is still available, but the cockpit does not

pressurize, which lulls the pilot into a false sense that operation is normal and does not give any external cues of a slow drop in cockpit pressure, such as during a gradual climb.

NATOPS requires that tactical jet aviators wear their masks from takeoff until landing. To all you mask rebels out there who choose to ignore this requirement and seek relief from wearing the mask, take my experience to heart.

Two other errors not mentioned in this story are also worth noting. First, the cabin-pressure switch should have already been in "normal" instead of "dump" before takeoff, in accordance with the NATOPS interior checklist.

Second, once leveling off at cruise altitude, the cruise checklist calls for close monitoring of cabin pressurization and temperature control. 

Missing checklist items or failing to do them are prime "gotchas" to watch for in routine operations.-Ed.

PH2 Michael W. Pendergrass

A Word to You

AS MONTH FIVE OF OUR DEPLOYMENT IN the Persian Gulf arrived, an insidious malaise had firmly gripped our air wing. The exciting had become mundane, the new had become old, and the experienced among us preached incessantly that the perils of carrier aviation waited for these very moments to snatch the inattentive and feast on their carelessness. Most of us, however, dismissed these warnings as contrived and the fears as irrational. Like the weary driver fighting off sleep in the early morning, we needed something to jolt us back into recognizing the real dangers of flying around the ship.

One day, as my engines spooled up and the jet squatted in tension, I paused momentarily and wondered if I had actually completed my takeoff checks. By now, most of my life was a series of routines and habits that required minimal thought, allowing my mind to wander toward other things during idle moments.

I had done the checks minutes earlier without much thought while I pondered something unrelated to flying. A quick scan of the flaps, trim setting, and the presence of two fires in the engines assured me that I was ready to go. With a control wipeout, I flipped the external-lights switch forward. I was catapulted into the dark, hazy abyss.

However, on the catapult stroke, the exhalation valve of my mask had seized shut, making it hard to breathe. I pulled down on the bayonet fitting, releasing the mask from my helmet, and secured the oxygen. I'd fiddle with it once I was safely away from the water.

I started a slow climb to 26,000 feet en route to our CAP station 100 miles south of mother. Once there, I set up an east-west racetrack pattern and put the autopilot on altitude hold while I waited for my wingman, who had launched late.

After only one lap in my holding pattern and

I would likely have flamed out somewhere in Iran, sleeping peacefully all the way to the crash.



LT Steve Lightstone

Mask Rebels

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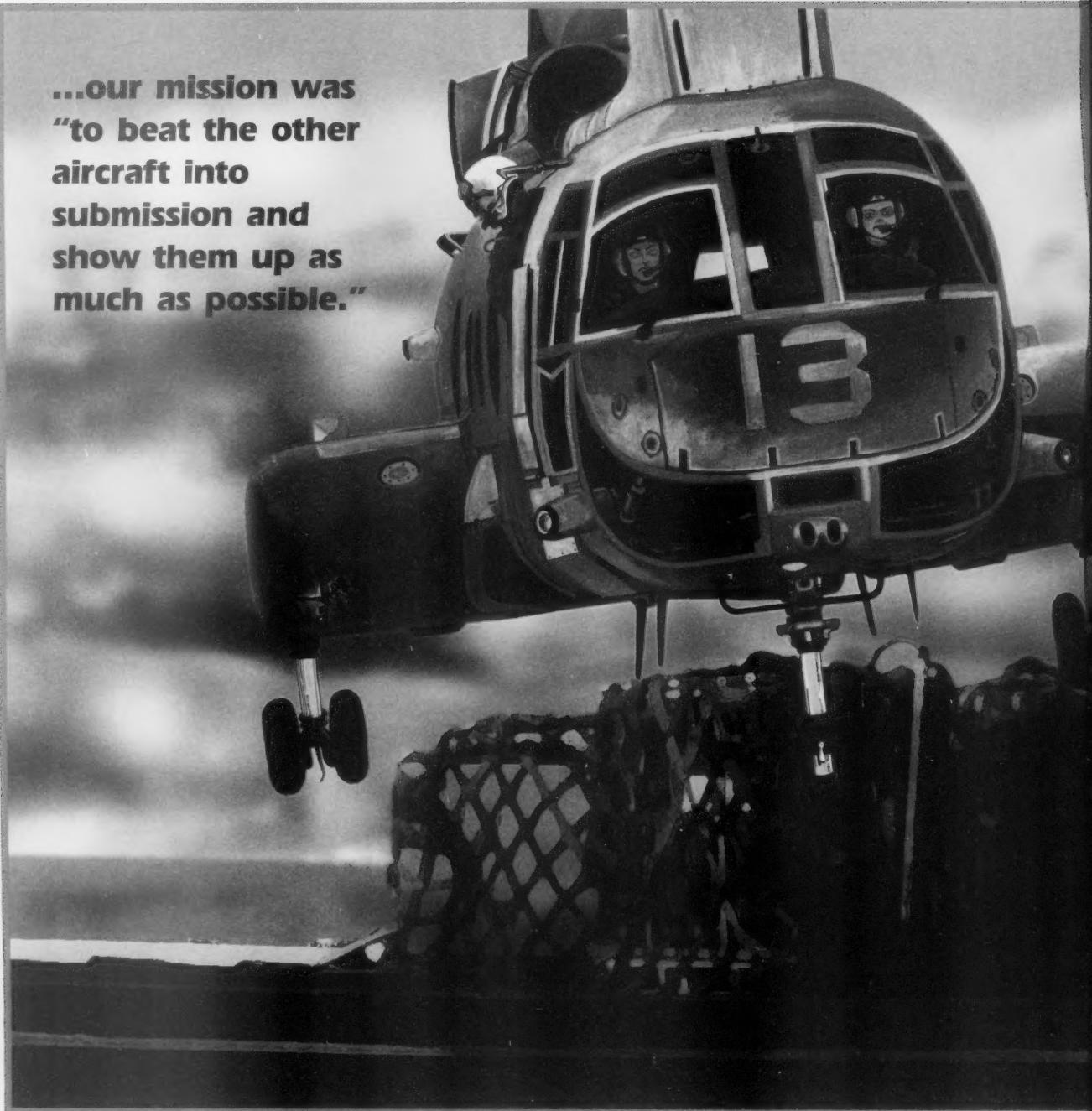
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PH2 Michael W. Pendergrass



**...our mission was
“to beat the other
aircraft into
submission and
show them up as
much as possible.”**



“Relax, the Duke’s G



by Lt. Jonathan Lewis

AS THE OLD JOKE GOES, THERE ARE THREE THINGS you never want to hear: an ensign saying, "Well, in all my years..."; a lieutenant commander saying, "Well, I think..."; and a lieutenant saying, "Watch this..."

Early one morning, I found myself sitting on the deck of an LPD during workups, waiting for the day's vertrep to start. It was, for all practical purposes, my first day of operations in the fleet. Until then, my vast experience aboard ship included the helo landing trainer, IX-514, in Pensacola, and those initial qualifications you do in the FRS with the ship making all of about 2 knots, with a sea state of 0, and winds straight up the bow at 5 knots. In my favor, I had logged quite a few hours at home guard.

It was a nice, VMC day, and we were working a stable deck the size of a football field. The crew was comfortable. Just as I was starting to feel safe and secure, the HAC, citing my lack of experience said, "You have your little bit of FRS experience, but that really isn't how we do it in the fleet. Watch this. I'll show you how to do vertrep."

Now, if I'd known any better, I would have tightened my shoulder harness, double-checked my HEEDS bottle, and opened my pocket checklist to the emergency procedures section. In all seriousness, I should have at least questioned the HAC on what was about to happen, but I didn't. The aircraft commander is the aircraft commander. Why would he ever do anything to jeopardize our safety?

A two-plane vertrep was scheduled, which means you don't want to be shown up by the other guy, in this case, the crew of the other aircraft. Thus, our mission was "to beat the other aircraft into submission and show them up as much as possible." Although I am now a fleet-seasoned H-46 pilot, that morning, I was being looked at as a liability. Making matters worse for our crew was the fact that it would be the first time in the "hell hole" for our second crewman, and he would be making all the ICS calls to maneuver us around. The hell hole is the hatch in the cabin deck through which the crewman guides the helicopter over the load and makes the hookup.

Without much more than "I've got the controls" from the HAC, we lifted and immediately started racing around the pattern for the first pickup. Looking back, it was something right out of those ACT films, which contain notable quotes like, "Just shut up and clear me

"got It"

**You could
feel the hit
throughout
the aircraft
and could
see people
on the
flight deck
sprinting
away
from us.**

left, rookie," or, "Relax, the Duke's got it wired." Then, there's the famous, "See, I told you so," seconds before the airliner crashes. But at the time, I assumed we were off to a winning start because the other aircraft had not even lifted into a hover.

We were on short final and entering our side-flare approach to the load. Doing so put the 20-knot winds off our port quarter and directly outside the envelope of our latest H-46 wind restriction. If that wasn't bad enough, we now had a tail wind on a June day off MCAS Cherry Point, a full bag of gas, and a 3,700-pound load of ammo underneath us. The load was on the deck edge of the aft starboard elevator, and the HAC was flying from the left seat. That meant that the cockpit was hanging out off the deck edge, and neither one of us had much reference to the deck.

During vertreps, this is sometimes the price of doing business when there is no other option. However, on this deck, we had plenty of room. During the pickup, we would have to rely on the rookie crewman to keep us clear and call us over the load. Talk about minimizing risks.

As we were struggling to get a hookup, it seemed as though we kept settling lower and lower over the load. The little that I could see of the flight deck revealed nine people scrambling out of the way and the LSE waving us up quite vigorously. It was obvious at this point that we should have waved off. Our rookie crewman was behind the power curve, and the PAC was not off to a good start either.

Sometimes waving it off and making a quick trip around the pattern helps everyone to regage after a lousy approach for a pick or drop. The crew chief suggested that idea, and I meekly backed him up, but the HAC wanted the pick, so we continued. You could tell the crew chief was getting anxious because he was now joining in on the calls and making it harder to understand anything.

After the third time, both crewmen called, "Up, up, up," because we were too

low. The LSE waved us off. As all helo bubbas know, you mostly consider the LSE signals advisory and listen to your crewman all the time, except when you hear one of two mandatory calls. "Up, up!" was one of them. Despite my waveoff call over the ICS and the simultaneous waveoff call from the Air Boss over tower frequency, the HAC was convinced we almost had a hookup, and made one last attempt to come down to the load. That's when the crew chief exclaimed, "We just hit with the stub wing!" You could feel the hit throughout the aircraft and could see people on the flight deck sprinting away from us. We waved it off.

The HAC wanted to know how hard we hit this solid wooden crate of ammunition and asked, "Was it a solid hit or just a tap?"

The salty crew chief replied, "Sir, we just tapped it, but it was an eighteen thousand-pound tap."

Instead of coming back around and landing to inspect any damage to the aircraft, we came back around and made the pick. As we were transiting with the load (now it was my turn to fly), we discussed the possibility of a punctured fuel bladder. We made the drop off at the next ship and landed. The crew chief jumped out and quickly shouted an expletive or two, telling us we had a hole approximately 8-by-10 inches through the stub wing. Amazingly, it was between spars, narrowly missing the fuel bladder. We still had a functional mainmount, and the load of ammo we hit was not damaged. We were fortunate we did not injure anyone on the flight deck. The only consequence this time was some cosmetic damage, which was temporarily repaired with duct tape. Later, the actual repair took approximately eight hours.

Regardless, the det OinC and the Air Boss (he told the LSE to wave us off) were not exactly pleased. The HAC had a few pounds chewed off his backside, and I, in my innocence, learned a valuable lesson: even the most experienced people can kill you. 

Lt. Lewis is an instructor pilot with VT-6.

**Following NATOPS
will keep you out
of this operation...**

and in operation.



Naval Safety Center
www.safetycenter.navy.mil
(757) 444-3520 (DSN 564)

Surgery photo by PH2(AW) Andrew Neerdaels
Poster idea submitted by Lt. Clint Cates of VAQ-132



Tear out this poster and newsletter!

Milestones

Class A Mishap-free Flight Hours			
Command	Date	Hours	Years
VT-6	05/13/99	167,000	7
VP-45	06/02/99	198,600	30
VFA-195	06/05/99	71,000	17
VP-1	06/16/99	100,000	16
VAW-120	06/16/99	42,300	6
VO-1	06/25/99	72,400	12
VAQ-141	06/29/99	10,400	5
VPU-2	07/06/99	41,709	17
VFA-147	07/12/99	34,000	8

Class A Mishaps

The following Navy and Marine Corps Class A flight and flight-related mishaps occurred since 24 March.

Aircraft	Date	Command	Fatalities
AV-8B	06/04/99	HMM-265	0
A Harrier crashed following takeoff.			
AV-8B	06/14/99	VMA-214	0
Engine failed during an air-to-ground mission; the pilot ejected.			
F-14A	06/15/99	VF-154	0
Aircraft lost its remaining engine while attempting to refuel in flight; the crew ejected.			
FA-18D	06/16/99	VMFAT-101	1
A Hornet departed controlled flight during ACM training.			
CH-53D	06/23/99	HMH-366	0
A Sea Stallion rolled over when its tail pylon came off during a landing; only four minor injuries with 21 souls aboard.			
FA-18C	06/27/99	VFA-86	0
Aircraft went to full throttle without a raised JBD; the exhaust blew a Hornet from VMFA-251 into a Tomcat from VF-102.			
AV-8B	06/29/99	VMA-211	0
A Harrier crashed during an air-to-air refueling mission.			
UH-3H	06/29/99	HC-85	0
A Sea King jettisoned a Mk-30 ASW target while flying to a SCORE range.			
T-34C	06/30/99	VT-6	0
A Turbo-Mentor on a PMCF went into a spiral, out of control and crashed in a forest; pilot bailed out.			

Class A Flight Mishap Rate

	FY99* thru 7/15/99		FY98 thru 7/15/98	
	No.	Rate	No.	Rate
Navy/Marine	18	1.52	24	2.02
All Navy	6	.67	17	1.87
All Marine	12	4.15	7	2.48
NAVAIRLANT	2	.84	5	2.04
NAVAIRPAC	2	.81	5	1.97
MARFORLANT	2	2.04	3	3.30
MARFORPAC	10	7.35	4	2.99
NATRACOM	2	.68	4	1.40
NAVAIRRES	0	0.00	0	0.00
4thMAW	0	0.00	0	0.00
NAVAIRSYSCOM	0	0.00	2	7.95
NAVSTKWARCEN	0	0.00	1	15.73

*FY99 data subject to change.

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 (757) 444-3520 ext. 7257 (DSN 564)



The new utility hydraulic pump, Vickers #PV3-115-38 and 39, is now available and being delivered at a rate of 10 pumps per month.

New Utility Hydraulic Pump Delivered to Fleet

The H-46 utility hydraulic pump has a long history of failures both on the ground and in flight. This fiscal year has been no exception, with several reported incidents on Navy and Marine Corps aircraft.

The utility hydraulic pump has been programmed for replacement for a few years and the new pump, Vickers #PV3-115-38 and 39, is now available and being delivered at a rate of 10 pumps per week. The pumps are being shipped according to already established type-commander priority lists.



New Design for Mk-1

COMNAVSEASYSOCOM has placed a newly designed Mk-1 life preserver in the supply system. The new Mk-1 has a nylon zipper instead of snaps, expanded pockets for the dye marker and strobe light, and a redesigned opening to fit both existing and proposed inflators.

NAVSEA also evaluated and approved a new chemical-pill auto-inflator for use in the Mk-1, aboard surface ships. The new inflator costs less (\$15 per copy as opposed to \$112), can be used more than once, and doesn't use an explosive charge to actuate the CO₂ cylinder. NAVSEA will publish guidance on how to procure and service the chemical-pill auto-inflator shortly.

Mk-1s with auto-inflators are the only authorized configuration permitted by NAVSEA aboard naval vessels. Life preservers fitted with manual inflators are not authorized.

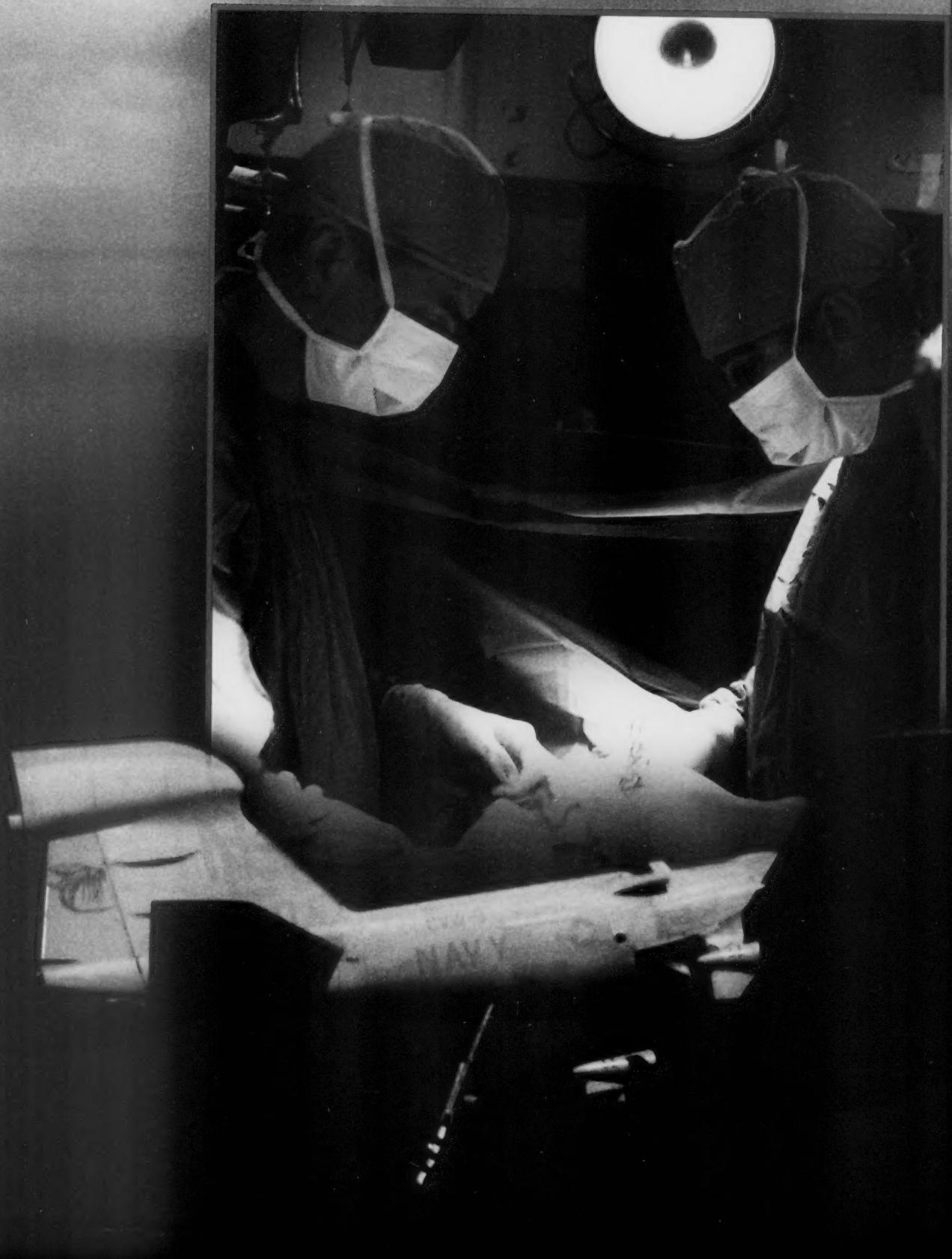
Manual inflators as, on the LPU-30/P, are used for passengers on helicopters and other aircraft. Brake riders in non-ejection-seat aircraft can also wear manual inflators, but automatic inflators have been authorized.

Maintenance and installation of the Mk-1 inflator is still a problem. A random inspection by INSURVLANL of 519 vests in 1998 yielded 78 failures, because of:

- ➊ Gasket improperly installed, 56 percent
- ➋ Discharged CO₂ cylinders installed, 12 percent
- ➌ Twisted bladders, 10 percent
- ➍ Holes in the bladder, 6 percent

Information and photos courtesy of *Mech* magazine, July - September 1999.

Edited by LCdr. Mark Enderson. Contributors can contact him at (757) 444-3520 Ext. 7245 (DSN 564). E-mail address: menderson@safetycenter.navy.mil



My Car Didn't Want Me To Fly

by Cdr. Mike Holton, USN (Ret)

MY ENSIGN-MOBILE, BEING AS EQUALLY SALTY AS I, needed remedial bodywork before its planned lay-up while I went on cruise. I had never done such work before I bought the how-to book and sundry supplies the salesman at the auto-parts store recommended.

I read the book on Friday after two FCLPs, then I went to work on Saturday morning. The book said to wear a mask or work outside while sanding. I worked outside, without a mask.

By Sunday evening, the car was good enough, and I was tired but satisfied. Monday, I still felt tired but OK.

We briefed a few practice approaches before dropping into the FCLP pattern with me in the right seat. We took off and climbed, and everything seemed fine.

However, at 500 feet on the first approach, I felt a twinge in my sinuses. I knew I didn't have a cold, but I recognized the problem as a sinus block. I did the Valsalva quickly, but it didn't



The book said to wear a mask or work outside while sanding.

help. I started to say, "Level off," when we touched down. I felt like an ice pick had been shoved between my eyes.

The flight surgeon confirmed the sinus block, and I was down for two weeks. What happened? My sinuses had become inflamed over the weekend because of the dust from the sanding I had done on my car. Just working outside wasn't good enough. I should have worn a mask.

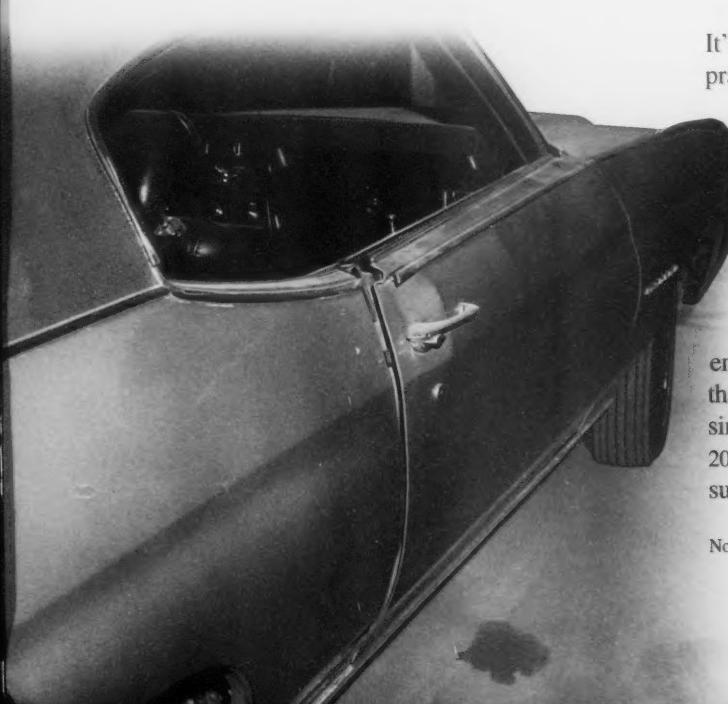
Fifteen years later, I am still nursing my ensign-mobile along. I've got a part in my vice that needs serious unbending. I think the vice is tight enough, so I apply pressure to the bent area. The part slips, rotates in place and smacks me on my nose. It hurts, I feel dumb, but there is no blood. I tighten the vise and finish the work.

The next day, I'm flying chase for an F-14 test. It's an easy flight, and I returned for a relaxed practice approach to a full stop.

On the way in, *deja vu!* The same twinge in my sinuses, the same "I'm not sick" feeling, the same quick Valsalva, and I level off. I abort the approach, descend slowly, and land without problems. I later extract—to put it nicely—a palm-full of dried, black blood from the bruised side of my nose.

In both cases, I didn't feel quite right, but not enough to down myself. It never occurred to me that something other than a cold could affect my sinuses or my ability to equalize pressure. With 20-20 hindsight, I should have checked with my flight surgeon.

Cdr. Holton flew E-2s in the fleet, and now flies Hawkeyes for Northrop Grumman.





WHISPERJET OVER THE GULF

by Lt. Jeffrey G. Heiges

"I really don't want to put this perfectly good jet into the water!" I thought at the time.

What could I have done wrong? I was sure I had followed the checklist verbatim, and I didn't know how or why both of my engines had just rolled back. In the haunting quiet, I struggled to get an engine back on line. I thought that at least I wasn't too far from the ship and that the helicopter would be able to pick me up soon if I had to eject.

I had been nearly finished with a functional check flight Bravo (Pro B) on AG 414 and had been heading back to the boat for a good-deal day trap. The jet had been made ready just before the launch after our powerplants shop worked hard to change an

engine that had been leaking fuel on a previous flight. The flight was proceeding smoothly, and it was a beautiful sunny day. What more could I ask for, except maybe a more exotic location than the Arabian Gulf?

The only remaining items on my checklist were the cross-bleed check and the emergency landing-gear extension check. Following the checklist, I secured the left engine (with the right engine's power at approximately 90 percent) and completed all the checks. After restarting the left engine using the cross-bleed method, I advanced the power on the left engine to approximately 90 percent.

I secured the right engine and watched the right generator kick off-line at 60 percent. At this moment, the left engine rolled back

on its own, so I immediately selected flight idle with the right throttle and put the nose down to try to restart the right engine. Both engines continued to roll back toward zero, and all generator power was effectively lost.

I'm here to tell you one minute is a long time without either engine in an FA-18. The Hornet isn't exactly the best glider in the world. The cross-bleed, switching-valve check in the FA-18 is initiated at 15,000 feet and 0.4 Mach, or roughly 200 knots. Unfortunately, this puts you between a rock and a hard place, because if you lose your good engine while the other one is shut down, you don't have enough air going through the engines to restart by windmilling. My instinct was to get the nose down to increase my airspeed to windmill the engine. I knew that I still had the option of using the auxiliary power unit (APU) to restart the engine, but the restart envelope for this is below 10,000 feet and below 250 knots. I sure was going to give it my best try to restart the engines before 10,000 feet.

When you lose both generators in the Hornet, all your instrument displays disappear, your inertial-navigation system (INS) dumps its alignment, and you lose your normal oxygen supply (if equipped with On-Board Oxygen Generating System).

Luckily for me, there was just enough residual hydraulic fluid in the system so the jet's flight controls didn't resort to the backup mechanical-link mode that is marginally controllable.

At 10,000 feet, I got the right engine restarted, and with

that, a couple of cockpit displays as well. The left engine never did re-light, as it turned out, because of a fuel leak. Vibration made a fuel line separate from the engine, causing it to flame out from fuel starvation.

That fuel leak compounded my problems. I tried going to an S-3 overhead the carrier to get some fuel and buy myself some time as I talked to the Hornet rep in the tower. The following equipment didn't work: INS, Mission Computer 1 (MC1), left generator, OBOGS (because of a GEN TIE caution), MPCD, and left DDI. I didn't try to reset the GEN TIE and risk losing the good generator. To make matters worse, the tanker reported "sour" as I was joining.

Because of the fuel leak, the aircraft was nearing single-engine bingo fuel, and the ship decided to bring me in for a standby, single-engine approach.

I made an uneventful arrested landing and was thankful that it was a nice day, albeit 115 degrees. It never felt so good to be back on deck.

Postflight tests revealed a broken fuel-nozzle feed line on the left engine. Vibrations in the engine caused the feed line to fail at the exact time I secured the right engine. Bad luck, yes, but it wasn't the first time an engine has failed with a good engine shut down, and probably won't be the last. Mechanical failures occur, and pilots, FCF pilots in particular, must have a game plan and be ready for systems to fail at the worst possible time.

Lt. Heiges was assigned to VFA-131 at the time of this story. He is now an instructor pilot with VFA-106.



Mainmount Tire

by LCdr. Karl Thomas

WE WERE JUST FINISHING A WEEK OF Eager Archer at Al Jaber Air Base flying against the Kuwaiti Air Force. Our carrier was in Port Jebel Ali getting some pier-side liberty, and we were a single Hawkeye with minimal aircrew, maintenance and parts support. We had accomplished our mission, but there had been a few challenging days where one problem or another had kept us grounded, literally controlling intercepts from our Hummer at the end of the runway.

The night before our return to the ship, a much-needed part had finally arrived on the COD, and we still had to make a high-power turn. By 2200, we had completed the turn and begun our 30-mile trek back to Camp Doha, making one last trip down the dark and dreaded "dead sheep highway."

When we arrived early the next morning, we found that another problem had developed, and the pilots had to do yet another turn. This was becoming par for the course on this det. I began giving serious consideration to sending all the unneeded aircrew back on the COD, leaving a minimum crew in case we had more difficulties. I gave them their choice, figuring our situation could only get better. To add just a little pressure, the squadron was scheduled to conduct Operation Southern Watch (OSW) flights the next day, and our aircraft was needed back on the ship. The rest of the air wing was already preparing to depart. The flight deck was going to be open for only a short time since the ship was scheduled for a refueling at sea.

We ran through a quick yet thorough brief and manned up. For the first time, I actually began to think we had a chance at making it before the flight deck closed. As we taxied down the runway to the hold-short, everything seemed normal. Pulling off at the arming-de-armng area, we began finishing our takeoff checks.

Some F-15s had just returned from an OSW mission and were preparing to clear the runway, the only runway in use since the other one was torn up to install arresting gear.

We finally received clearance to take the active, and the pilots began running up the engines. They quickly noticed the starboard rpm reaching 105 percent, and the entire crew heard rough, abnormal sounds as the props increased pitch. We checked all the circuit breakers as the pilots ran up the engines, again thinking they might have advanced the power levers too quickly.



BLAZE

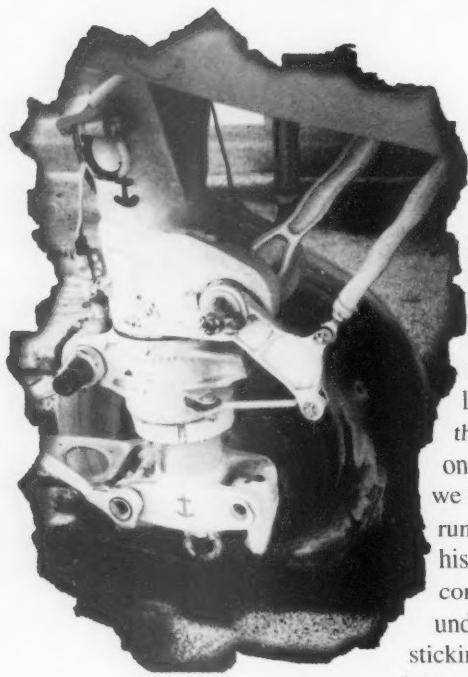
**...I saw flames surrounding
the tire and working their
way up toward the nacelle.**

Running up to full power again, they got the same indications. We taxied clear of the active runway to do more troubleshooting. Our window to make it back to the ship was getting smaller.

After yet another attempt in the arm-de-arm area, and once again seeing the same indications, we knew we weren't going to the ship this day. One discussion we all remember was to keep the engine running so our mechs could see the off-speed indications and horsepower split.

As we reached the 2-board, the pilot commented on how the plane was getting hard to control and that it was pulling to the left. He asked the copilot to stand by the brakes. Shortly afterward, he decided it was time to T-handle and shut down the engine. At that same moment, the air-control officer (who sits farthest aft in the tube) announced, "We've got a fire on the right side!" Looking out my window I saw flames surrounding the tire and working their way up toward the nacelle.





The three crewmen in the back quickly prepared to exit the aircraft as the pilot tried slowing the aircraft and turn off the active onto the access ramp to the line. The copilot called the tower to report a fire on the right brake and that we were clearing the active runway. After he repeated his call, the Kuwaiti tower controller appeared to understand. We weren't sticking around to find out. We

used the emergency brake, and the plane came to a quick stop. The five of us began our hurried exit through the main hatch as the port prop spun down.

For what seemed like an eternity (but was probably 5 to 10 seconds), the three of us in the back had been staring through our little windows as the flames darted around the right main-mount. At times, they even reached the nacelle doors (probably a flare up from fuel venting when we T-handled the engine), and we were all anxious to get out of the aircraft.

With "all" this time, I noticed the fire extinguisher by my right knee and decided to grab it on my way out. Not necessarily a bad idea because it took no extra time, but it formed my mindset for my next actions.

As we made it out the door, four people ran directly out the wing toward the grass strip next to the taxiway. I took a quick left around the back of the plane, giving a wide berth to see the status of the fire. As the det OinC (a det that hadn't gone as planned and was getting much worse at that very moment), my adrenaline was pumping as I tried to figure out what to do. I looked toward the tower and didn't see any fire trucks. I didn't

hear any sirens, either. Our brakes and parts of the tire were now on fire, and I had visions of the flames working their way up the engine nacelle to the fuel tanks on top.

With my little five-pound Halon fire extinguisher in hand and no other options than to let the fire burn and possibly strand our aircraft in Kuwait for a very long time, I tried knocking down the flames. It wasn't really a conscious decision, more a reaction that seemed right at the time, given the circumstances.

As I approached the tire, I could see the glowing brakes on fire. Then I heard a loud hissing sound as the fuse plugs in the tire melted and let the pressure escape before exploding. There still was no sign of a fire truck as I squeezed the handle. My little fire extinguisher lasted about five seconds and gave out three useless puffs of Halon, especially ineffective because I didn't want to get too close.

Turning around to look for the fire trucks, I saw two Air Force guys at about 200 yards rolling a big 150-pound Halon extinguisher toward us. I motioned for them to hurry, and they began to run. I met them and began pulling the fire hose as one untangled the mess we were creating and the other charged the bottle. At 20 feet from the fire I discharged a large quantity of Halon and beat down the fire... for a moment.

Our brake lines had melted, and hydraulic fluid was leaking onto the red-hot brakes. As the fire sprang back to life, another squirt knocked it down. Just as I thought we had the situation under control, the ACO came running around the front of the plane yelling that the port brake was now on fire. The two of us quickly maneuvered the bottle to the other side and doused that wheel in Halon, beating back the flames.

We could hear fire trucks in the distance. As they rolled to the scene, we had already

taken the bottle back to the starboard side that had continued to flare up. A Kuwaiti firefighter got his hose team manned up, and a U.S. Air Force fire truck rolled up shortly behind. The Air Force fire marshal quickly took charge, telling everyone to move back... well back from the aircraft. His men donned oxygen tanks and moved in with extinguishers to check the brakes. They set a hose watch on the aircraft and told us we wouldn't be able to get near it for at least 30 minutes. That 30 minutes ended up an hour and 40 minutes, during which time they sprayed dry chemical (PKP) on both tires because of continued flare-ups.

The fire marshal asked me what agents had been used on the tire so he could complete his reports. I explained what had happened, and he looked at me like I was nuts. He said I was lucky the brake hadn't blown up in my face. Feeling a little defensive, I shot back if they had arrived a little sooner, I wouldn't have been put in that situation. He retorted that the Kuwaiti tower controller never called the Air Force, but when they saw the Kuwaiti trucks roll, they decided to follow. In the end, I walked away wondering whether I had been foolish or done the right thing.

When I got back to the ship, I decided to get a little smarter on brake fires and find out just how close I had come to jeopardizing my life.

Talking to the crash-and-salvage people back on the ship, I asked what they would do if an aircraft came back with a brake fire (not so likely on the ship, but they are all trained to handle one). We're always taught in flight-deck firefighting that sand or jettisoning the item are the best solutions for a Class "D," but in this case, those options weren't available.

The air boatswain responded he would use one of his flight-deck trucks and expend

all the Halon available. He told me Halon is not as cold as CO₂ when it expands because it is not as compressed and therefore doesn't pose as much of an explosive danger. They were actually quite critical of the Air Force crew for using PKP in this situation because of its corrosive nature.

After looking in the crash-and-salvage manual, I determined there wasn't a great answer to the brake fire. There are several warnings about the dangers of combating wheel fires because of the increased pressures, temperature changes, deterioration of components and toxic gases (vapors were something I hadn't even considered).

I looked into NATOPS to see what it said, only to find a warning about approaching hot brakes from a 45-degree cone aft of the nacelle because tires explode to the side. I had been within that 45 degrees by chance but forward of the nacelle. Since the fuse plugs had already worked, the tire explosion danger didn't apply (NATOPS doesn't mention anything about these plugs).

In the end, I decided I was fortunate not to have had a brake explode in my face. At the same time, I couldn't convince myself I would act differently. I wish I had sent the unnecessary aircrew back on the COD, and I am sure we hadn't let outside pressure influence our decision process, other than wanting to let our maintainers troubleshoot the turning engine, rather than shutting it down at the hold-short, a decision we all regret now.

Nobody in our squadron had been in a situation exactly like this, and it generated quite a discussion. One thing we all agreed on was when operating at U.S. airfields where communications are not an issue and fast fire-truck response is likely, we would all let them do their job, and run straight out the wing line away from the aircraft. 

LCdr. Thomas is a CICO with VAW-117.

by LCdr. T.W. Johnson

AFTER 12 YEARS OF FLYING AND 3,000 HOURS, I FINALLY had a flight where I knew I was going to die. I have heard others talk about having more than one of these unfortunate experiences, but I hope I never have another.

It was a night, 2 v 2, air-intercept hop off the ship. We'd flown the mission a hundred times, and we needed to be alert. I launched, joined with my lead on an S-3 tanker, then headed for the work area.

Our squadron had transitioned from Lot IX Hornets to Lot XIV birds about a year earlier. One of the great benefits of the new aircraft was its NVG capability. We enthusiastically welcomed this enhancement. Any pilot who has flown with NVGs will tell you he would rather not fly at night if he didn't have them.

Shortly after leaving the tanker, we goggled up, following our brief. Within a few minutes, we were at max endurance in cruise formation. No hurry. We had an hour and a half to complete the intercepts and get back to the marshal stack.

I looked down at my kneeboard card for some information. At the same time, I must have turned into my lead, or he turned into me. I caught movement out of the corner of my eye, and as I looked up, I saw lead's airplane filling my canopy. I couldn't underrun; I wouldn't make it.

I did the only thing I could: I rolled 90 degrees, right wing down, and pulled the stick all the way back. After a few seconds, I realized I was still alive and rolled wings level. Much to my relief, lead was getting smaller on the horizon. Wow! I spent the rest of the flight padlocked on lead.

After we recovered, lead had a few pointed debrief items. First was, "Don't do that again!" He had also seen some movement out of the corner of his eye, and when he looked right, he saw only the belly of my airplane. He estimated the closest point of approach was five feet from his wingtip to my drop tank.

When flying a relatively close formation, especially at night, keep your eye on your lead. At night, it's harder to judge distances and closure rates. Wearing NVGs makes it even more challenging. We brief these limitations before every flight. We also brief looking under the goggles to maintain situational awareness and to help judge distance and closure.

I eventually became a weapons-school instructor, and an NVG instructor, and I've described this near-miss many times. 

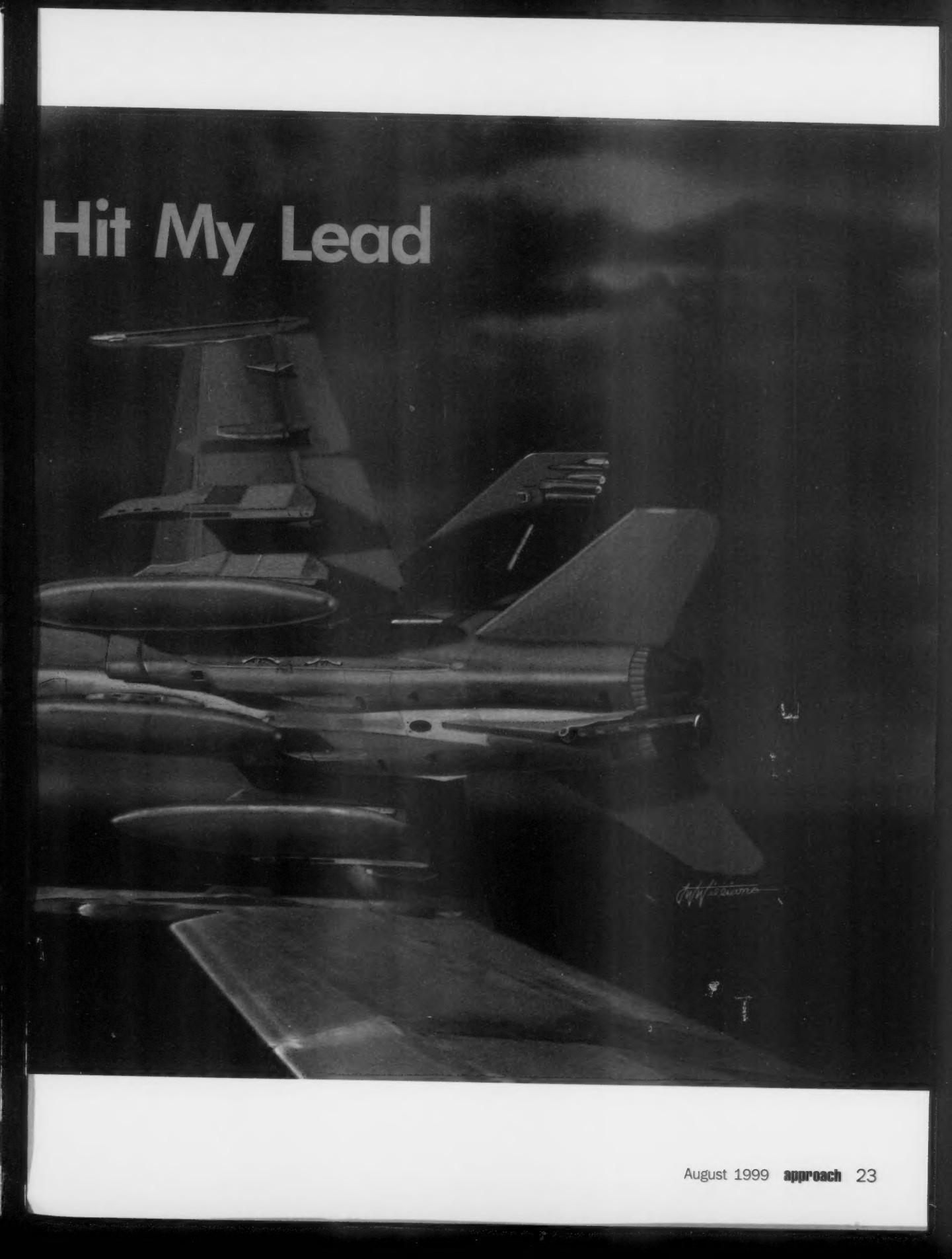
LCdr. Johnson flies with VFA-86.

I Almost

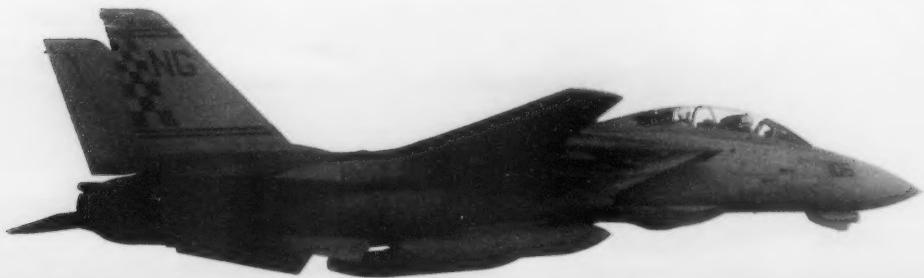
He estimated
the closest point
of approach
was five feet
from his
wingtip...



Hit My Lead



Riding in the



by LCDR. W. Dave Smith

MY PILOT AND I WERE FLYING A PMCF on one of the squadron's F-14As, and the check flight was going great. All the aircraft systems were performing as advertised.

"Looking good so far," I thought as we started our climb toward 35,000 feet to do the next item on our checklist, the high-speed dash to 1.5 IMN.

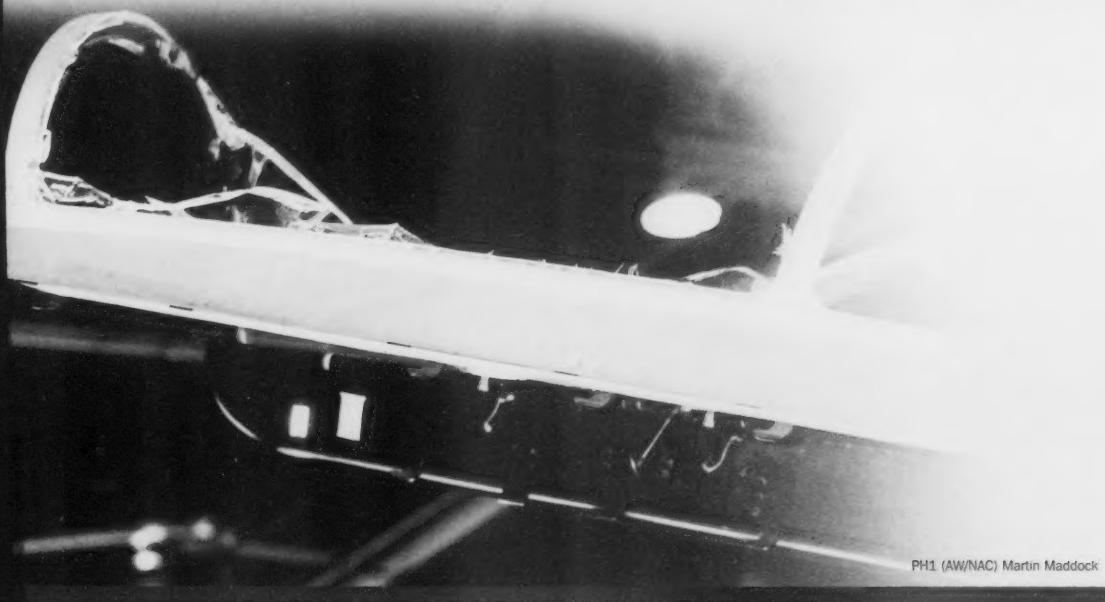
Passing 30,000 feet at 320 KIAS, we heard a loud pop followed by rapid decompression and a cold wind blast, like riding in a rumble seat. Without any warning or failure indications, the forward half of the canopy plexiglas had shattered. Approximately 85 percent of this part of the canopy had blown out, leaving only jagged remains around the canopy frame.

With masks on and visors down, we both had survived the rapid decompression, and neither of us had been hit by shrapnel.

As we rolled into a slow, descending left turn, I tried to assess my pilot's condition. Communicating was hard. Even with my seat full down, we had to repeat ourselves several times before we could understand how the other was doing.

As we descended and slowed our speed, my first concern was the upper ejection handle on my pilot's seat, which was being subjected to high windblast. Conveying my concern through the loud noise, without saying the word "Eject," was difficult. Ultimately, we opted to leave his upper handle alone, considering the seat had already withstood a much higher windblast. Although ejection-seat development testing did not specifically address this, the design of the upper handle, which requires a 35-to 70-pound forward force to initiate ejection, is such that it is unlikely that being subjected to even high windblasts would cause an ejection. Another concern was the possibility of my pilot injuring his arm in the

Rumble Seat



PH1 (AW/NAC) Martin Maddock

windblast or on sharp edges around his seat. To prevent the possibility of inadvertent ejection, I had safed my upper ejection handle and selected "pilot" on the command-eject lever.

On our slow flight back to base, my pilot and I discussed several issues. Should we jettison the canopy to make sure that more plexiglas shrapnel wouldn't break off and hurt me? We decided against this. With my seat lowered all the way down, I felt comfortable behind the protection of the DDD (detailed-data display).

We decided against trapping because we wanted a minimum-rate-of-descent landing with a smooth rollout to avoid breaking off more pieces of the canopy. Another consideration would be a controllability check above 10,000 feet in the dirty configuration. We felt comfortable with our aircraft and "dirtied-up" above 5,000 feet.

After an uneventful landing, my pilot visited the doc to remove some dirt particles

from his eyes. After an uncomfortable but thorough rinsing, he was OK.

The next day, we put on a new canopy and took this jet up for another try. Although it was hard to detect below 30,000 feet, we discovered that the canopy pressurization system wasn't working and was causing excessive cabin pressure at high altitudes, something the cabin-pressure caution light was not designed to detect. This and other possible deficiencies with the canopy may have contributed to the failure, something an ongoing engineering investigation may determine.

What are some of the lessons learned? Besides taking a good look at canopies during preflight, this incident has made me more aware of monitoring the cabin pressure during flights at high altitudes. Also, this occurrence brings home the importance of wearing your mask with the visor down at all times. 

LCdr. Smith flies with VF-211.

Freezing Level Follies

by Lt. Larry Young and Lt.jg. Tino Delacruz

WE HAD JUST RETURNED FROM OUR first long cruise in the squadron and had completed the HAC syllabus up to that final check ride with the skipper. Operations had shown great trust in our abilities and given us an SH-60B with five and a half hours of scheduled flight time—enough for an “out and in” to Tallahassee. (Of course, they first sent out the requisite NOTAM about an H2P-H2P flight!)

We showed up bright-eyed and bushy tailed for our 0630 brief. Before looking at the aircraft discrepancy book in maintenance control, we stopped by base ops for a weather brief and to file our flight plan. The forecast showed that we would be flying in the goo for most of the flight but no threatening thunderstorms, turbulence or icing conditions—or so we thought.

The forecaster made it a point to tell us that the predicted freezing level for our route of flight was 9,300 feet, well above the 4,000 feet we had filed. Four thousand feet is like a space shuttle orbit for a LAMPS bubba, so you can imagine our lack of concern for any freezing level at more than twice the altitude we had filed for, especially in Florida.

The first half hour of the flight was fine, despite the light turbulence and the goo. Hey, we were logging actual instrument time. Besides, ever since checking into our fleet squadron, we rarely had the chance to fly the airways. My copilot had the IFR chart out, and I was diligently scanning the flight and engine instruments when our aircrewman spoke up from the back.

“Sir, we’ve got icing back here.”

“Huh?” was our collective response from the cockpit.

My copilot looked across the cockpit and noticed about an inch of rime-ice buildup on the leading edge of my mirror and that OAT was zero degrees. I looked up and saw the ice was rapidly building up on the windscreen and windshield wipers. It couldn’t have taken more than a few seconds!

We quickly turned on the engine anti-ice switches (pitot heat was already on) and requested a descent from Jax Center. We descended to 2,000 feet and leveled off, hoping the ice would just go away. At first, nothing happened. The ice wasn’t melting. Then, miracle of miracles, we saw a hole in the clag below us and dove (figuratively speaking, of course) for VMC. The ice melted.

We canceled IFR and continued VFR to Tallahassee. We decided, after conferring with our squadron on the phone, that we would file VFR for the return leg as well.

The whole episode lasted about five minutes. It’s definitely something we’ll never forget. We didn’t do everything right, and the situation could certainly have been worse, but at least we were able to come back and tell people about what had happened.

The lessons are straightforward. First, chalk another one up to aircrew coordination. We were glad to have an aircrewman who was on the ball, paying attention outside the aircraft, and wasn’t afraid to speak up.

Second, the big lesson for us was to check OAT, especially when flying in IMC. The SH-60B NATOPS recommends engine

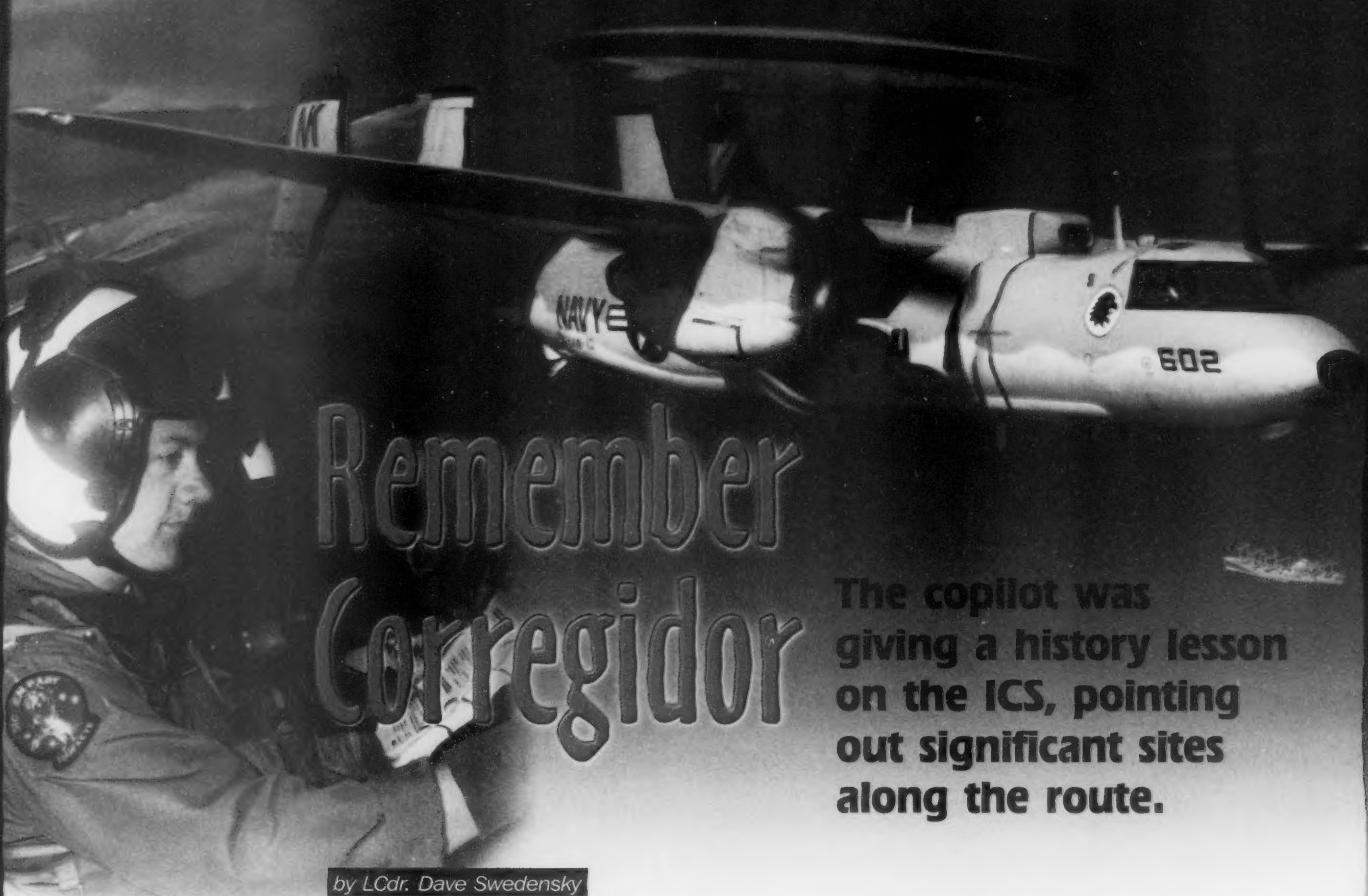
anti-ice whenever OAT is less than 5 degrees C in visible moisture. Because of its central location between pilots in the cockpit, the OAT gauge is not easily included in your scan, especially during IMC flight.

Last, but certainly not least, we were lucky to be where we were, when we were—daytime. Sure, we were in IMC, but at least it was daytime IMC. (And we all know how much better any aircraft flies in day air than in night air.) We broke out in VMC and could maintain VMC. Also, we were in Florida. We could not imagine how we

would have escaped from icing conditions flying IMC over mountainous terrain in, say Colorado. 

Lt. Young and Lt.jg. Delacruz fly with HSL-42.

**Four thousand
feet is like a space
shuttle orbit for a
LAMPS bubba, so you
can imagine our lack
of concern for any
freezing level...**



Remember Corregidor

by LCdr. Dave Swedensky

WE WERE HALFWAY THROUGH A TWO-week stop in Subic Bay and, like most crews, we had flown aircraft to Cubi Point for maintenance and crew proficiency flights. Tasking was light, and the liberty was good.

One day, we had what was supposed to be a good-deal, all-JO hop, with two plane commanders and three CICOs. The mission was VFR fam for the front end, and an NFO NATOPS-stan check for the back end. After the back end had completed their portion, the front end planned to fly by Corregidor at no lower than 500 feet AGL. That's how we briefed the mission; that's how we flew it. And that's how we got into trouble.

The NATOPS portion was going well. The NFO under evaluation knew his stuff. We finished what we had to at altitude and cleared the front end to descend for the VFR fam portion. I would be leaving the squadron soon, and the prospective NFO NATOPS officer was with us in the tube. We quizzed the third NFO as we flew toward Corregidor.

The copilot was giving a history lesson on the ICS, pointing out significant sites along the route.

The copilot was giving a history lesson on the ICS, pointing out significant sites along the route. I had long ago learned to listen selectively and wasn't paying attention to his commentary, focusing, instead, on the NATOPS evaluation.

When the pilots thought we were over Corregidor, the UHF guard receiver came alive, demanding the E-2 circling Grande Island at 50 feet check in with Cubi Tower immediately. Grande Island is in line with Cubi's approach corridor. That call got our attention in the tube. We checked the altimeter (one of three flight instruments available in the CIC compartment) and looked out the tiny holes we call windows.

To our relief, we were at 500 feet. Knowing the skipper was airborne in another aircraft, I selected the front end on the ICS and fired a few cheap shots at his expense.

Now, Cubi Tower was demanding the E-2 over Grande Island check in immediately. Something wasn't right. We checked the

TACAN needle and DME indicator on the BDHI (the second of the three available back-end flight instruments). We asked the flight deck to verify the TACAN channel they had set. I knew we were in trouble when they replied with a four-letter word. Somehow, we had mistaken Grande Island for Corregidor.

How anyone could have made such an error on a severe-clear day almost doesn't matter. It happened, and with five qualified, experienced crewmen. Of course, the skipper thought it was a matter of concern. He had been monitoring the same guard transmissions. I realized we had briefed and flown the flight as a front-end crew instead

of from the back end. Although we monitored each other's progress, the two ends were working as different crews, making separate decisions and taking separate actions. Communication had broken down, and so had situational awareness.

Since that incident, I have worked to eliminate "front end" and "back end" from my aviation vocabulary, and instead, have focused on a single-crew concept. Some people think the E-2's layout makes segregation inevitable. They scoff at ACT, finding it unnecessarily tedious and complicated. To them I say, "Remember Corregidor!" 

LCdr. Swedensky flies with VAW-113.

On Cat 1

Coming Attractions for September

Thirty-Five Hundred Hours of Lessons Learned

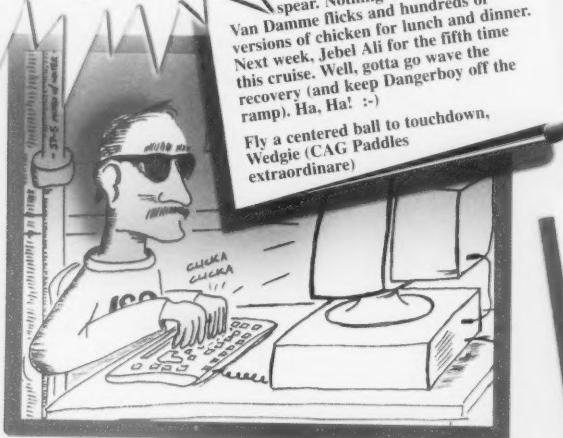
What Idiots! or It Takes One To Know One

Personal Survival Equipment: Why I Carry a Hand-Held GPS



Tony Holmes

Information Technology in the Spotlight



BROWN SHOES IN ACTION COMIX

"The kind real aviators like"
by Cdr. Ward Carroll

Subject: Greetings from BWI
From: COMMAIR@layover.com
To: My reserve buddies and everybody
I ever knew when I was in the Navy
who are now mostly contractors

Dear Letter Droppers and Retired Guys,

Although I got out, I'm as in touch with the fleet as ever, thanks to e-mail. The latest gouge: Dangerboy had a ramp strike.

Ensure three green,
Furlough Freenburgen



Subject: You need our new stuff
From: Scooter@BD.com
To: VADM Boof, Thunder Thomas

Dear Admiral,

How are you fixed for lapel pins? Calendars? Just let me know what you need. We've got plenty, and nothing over \$20 (wink...)

Heard about Dangerboy's ramp strike from the e-mail circulating around. Remember, I sell jets, so if you need a replacement, just let me know.

A 1-wire will stop you, too,
Scooter Doodle, LCDR, USN (Ret.)
Boeheed-Douglas Representative



Subject: What the hell is going on out there?
From: admiral@tycom.navy.mil
To: CO@vf3.14.navy.mil

Skipper,

I just got word of a mishap in your squadron: a ramp strike by a "Dangerboy." Is your POTS line down?

Your type commander, VADM "Used to be Boof" but now "Thunder" Thomas

